IN THE CLAIMS

Listing Of Claims

1. (Currently amended) A belt conveyor comprising:

a conveying upper run ~~(41)~~ including: a feed end, ~~(41a);~~ a discharge end, and ~~(41b);~~ a return lower run (42); ~~and~~ characterized in that the conveying upper run comprises a curved ~~longitudinal~~ extension (43), which is concave and ascending ~~for transporting a material~~ and includes [[:]] an inlet lower portion (43a) and an outlet upper portion (43b), the latter ending at the discharge end (41b) of the conveying upper run (41); [[,]]

wherein the belt conveyor provides to material on the belt conveyor a ~~curved longitudinal extension forms an ascending curved~~ path that is substantially coplanar and opposite in relation to that imparted to the material in the inlet portion (43a), said ascending curved path providing ~~the curved longitudinal extension presenting~~ a curvature for producing a centrifugal force on the material conveyed at a determined belt speed, wherein the centrifugal force is sufficient to maintain the material seated against the curved extension (43) of the conveying upper run (41), until reaching the discharge end (41b), wherein said curved extension (43) has a single radius of curvature and has a material support face having opposite marginal portions (43c), each seated on one respective support roller (44) having a radius of curvature defines the radius of curvature of the curved extension.

2 - 4. (cancelled)

5. (Currently amended) The belt conveyor according to claim 1, wherein the conveying upper run (41) further includes [[:]] a linear extension (45) arranged immediately downstream of the feed end (41a) and ending in the inlet portion (43a) of the curved extension (43).

6. (previously presented) The belt conveyor according to claim 5, wherein the linear extension (45) presents an inclination at maximum equal to a limit slope value for a belt conveyor.

7 - 8. (cancelled)

9. (Currently amended) A crushing unit, comprising:

a first belt conveyor (10) for conducting a bulk material (M) to a classifying screen (20) for discharging rejected large material;

a second belt conveyor (40) which includes [[:]] a second conveying upper run (41) including [[: the]] a second feed end (41a); a lifted discharge end (41b); a return lower run (42); and a curved ~~longitudinal~~ extension (43), which is concave and ascending for transporting the bulk material and includes [[:]] an inlet lower portion (43a) and an outlet upper portion (43b) ending at the discharge end (41b) of the second conveying upper run (41); [[,]]

a crusher (30) for receiving rejected material from the classifying screen (20) and discharging material to the second feed end (41a) of a conveying upper run (41);

and

wherein the first conveyor belt has a feed end (10a) positioned in the curved extension (43) of the second conveyor (40), the first belt conveyor (10) being vertically disposed above the second belt conveyor (40), the curved ~~longitudinal~~ extension having a single radius of curvature and having a material support face having opposite marginal portions (43c), each seated on one respective support roller (44) having a radius of curvature which defines the radius of curvature of the curved extension (43), the first conveyor 10 having a feed end (10a) mounted around a roll (R) disposed internally and coaxially in relation to said support rollers (44) ~~forms an scending curved path that is substantially coplanar and opposite in relation to that imparted to the material in the inlet portion (43a), the presenting a curvature for producing a centrifugal force on the bulk material conveyed at a determined belt speed, wherein the centrifugal force is sufficient to maintain the material seated against the curved extension (43) of the second conveying upper run (41), until reaching the discharge end (41b); and~~

~~wherein the lifted discharge end (41b) discharges the crushed material to a first feed end (10a) of the first belt conveyor (10),~~

~~wherein the first belt conveyor (10) has the first feed end (10a) positioned in the curved extension (43) of the second belt conveyor (40); and~~

~~wherein the first belt conveyor (10) is vertically disposed above the second belt conveyor (40)~~.

10. (previously presented) The crushing unit according to claim 9, wherein the first belt conveyor (10) is parallel and vertically aligned in relation to the second belt conveyor (40).

11. (previously presented) The crushing unit according to claim 9, wherein the first and second belt conveyors are mounted on a vehicle chassis V.

12. (cancelled)

13. (Currently amended) The crushing unit according to claim [[12]] 9, wherein the second conveying upper run (41) further includes:

a linear extension (45) arranged immediately downstream to the feed end (41a) and ending in the inlet portion (43a) of the curved extension (43).

14. (previously presented) The crushing unit according to claim 13, wherein the linear extension (45) presents an inclination at maximum equal to a limit inclination value for the second belt conveyor.

15. (cancelled) ~~The crushing unit according to claim 14, wherein the material support face is seated, in each respective marginal portion (43c), on a corresponding support roller (44), whose radius of curvature defines the radius of curvature of the curved extension (43).~~

16. (Currently amended) The crushing unit according to claim 9 [[15]], wherein the first conveyor (10) has the first feed end (10a) affixed internally and eccentrically in relation to the support rollers (44) ~~of the marginal portions (43c)~~.

17. (Currently amended) The crushing unit according to claim [[15]] 9, wherein each of the support rollers (44), which defines the radius of curvature of the curved extension (43), is mounted to a respective shaft that is externally journalled to the adjacent side of the second belt conveyor (40).

18. (Currently amended) The crushing unit according to claim [[15]] 9, wherein the support rollers (44) which define the radius of curvature of the curved extension (43) are mounted to a common single shaft, with the ends external to the respective opposite sides of the second belt conveyor (40) resting on respective bearings.

19. (Cancelled)

20. (Currently amended) The crushing unit according to claim [[19]] 9, wherein the roll (R) of the feed end (10a) is incorporated in a single piece to the support rollers (44).

21. (Currently amended) The crushing unit according to claim [[19]] 9, wherein the roll (R) of the feed end (10a) is supported on the common end of the two support rollers (44), and supported internally to one of the two support rollers (44).